

2000

Terry Creek Ecological Screening Evaluation Brunswick, Georgia



U. S. Environmental Protection Agency
Science and Ecosystem Support Division
Ecological Assessment Branch
Athens, Georgia

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1.0 INTRODUCTION

An ecological screening evaluation of Terry Creek and nearby streams was initiated by the United States Environmental Protection Agency (USEPA), Region 4, Science and Ecosystem Support Division on February 18, 1997. This action was in response to a request for assistance by the USEPA Emergency Response Team. The purpose of this study was to evaluate the potential for impacts to human health and the environment from contaminants in Terry Creek. Terry Creek is used as a fishing and blue crab collection site by the general public. Concerns have been raised about dangers to consumer health from possible contaminants in biological organisms collected from this area. The primary contaminant of concern was toxaphene. Sample collection activities were a joint venture involving the Georgia Department of Natural Resources (GDNR) and the USEPA.

2.0 SITE DESCRIPTION

2.1 Study Area

The study area is located in the Atlantic coastal region of the southeastern United States, east of the city of Brunswick in Glynn County, Georgia (Figure 1). The habitats selected for evaluation were tidally influenced streams flowing through emergent herbaceous wetlands. Marsh vegetation was primarily smooth cordgrass (*Spartina alterniflora*) and needle rush (*Juncus roemerianus*).

2.2 Station Locations

A reconnaissance of the area was conducted February 18, 1997 to ensure access and suitability of stations for sample collection. Based on the field reconnaissance, the following five stations were selected for collection of surface water, sediment, and blue crab (*Callinectes sapidus*) samples (Figure 2):

- 001 Terry and Dupree Creeks
- 002 Mouth of Terry Creek
- 003 Mouth of Back River
- 004 Back Landing
- 005 Jove Creek (control station)

Four additional stations (1A, 1B, 1C, 1D) were selected for sediment sampling in small tidal streams draining the two dredge spoil sites located adjacent to Dupree and Terry Creeks (Figure 2). Nine stations were selected for collection of forage fish in and near Dupree and Terry Creeks (Figure 3). Consumer fish were collected from four zones as shown by the shaded areas labeled Zone A through Zone D (Figure 4). Zone A included Back Landing north of Clubbs Creek, Zone B included the upstream segment of Terry Creek, Zone C included the downstream reach of Terry Creek east of its confluence with Dupree Creek, and Zone D included Dupree Creek and a small part of Terry Creek.

3.0 METHODS

3.1 Field Sampling Methods

3.1.1 Sediment and Surface Water Samples

Sediment and surface water samples were collected near the margin of tidal channels during a low tide. Surface water was collected as subsurface grab samples. Sediment samples were collected from the top 15 cm of sediment in depositional areas on the inside bend of a tidal channel.

Pre-cleaned bottles, glass pans, and stainless steel scoops were used to collect sediment and surface water samples at each station. Bottles and plastic bags were labeled immediately prior to sampling. Clean gloves were used at each station. Sample collection information was recorded in a bound field notebook. Samples were placed in coolers on ice immediately after collection. Sample collection activities followed guidelines described in USEPA Environmental Compliance Branch Standard Operating Procedures (USEPA 1991).

3.1.2 Biological Samples

Baited crab pots were deployed during the reconnaissance and remained in place for four complete tidal cycles. Upon retrieval, blue crabs were removed from the crab pots, placed in plastic bags and immediately packed on ice.

Forage and consumer fish sampling activities were conducted over a period of several weeks from February 18 to March 19, 1997, due to delays caused by availability of biological organisms and appropriate daily tidal cycles. Mummichogs (*Fundulus heteroclitus*) were selected as the main forage fish species. Mummichogs were collected using non-baited minnow traps placed in small tidal streams. Traps were placed in the streams during a high tide and retrieved during the falling tide. The traps functioned as a block net. Mummichogs were funneled into the traps as they moved from the marsh during the falling tide. Upon retrieval, mummichogs were removed from the traps, placed in plastic bags, and packed on ice.

Efforts to collect consumer fish were conducted at various times during the tidal cycles. Consumer fish were collected using a variety of collection techniques (otter trawls, trammel nets, and hook and line). The most successful methods were trammel nets and hook and line. Immediately after collection, consumer fish samples were packed on ice. These fish were fileted within 48 hours, and the filets were then frozen, since only the edible portion was to be used for chemical analysis. Based on collection results, spotted sea trout (*Cynoscion nebulosus*) was selected as the target species (USEPA 1995) for chemical analysis.

On two separate occasions, attempts were made to collect clapper rails (*Rallus longirostris*). However, no clapper rails were sited at or near the study area.

Field handling and processing of biological samples were conducted following guidelines suggested in Fish Field and Laboratory Methods for Evaluating the Biological Integrity of Surface Waters (Klemm et al. 1993).

3.2 Laboratory Methods

3.2.1 Tissue Preparation

To prevent loss of fluids, tissue samples were kept frozen during processing. Tissue samples were removed from the freezer, chopped into manageable pieces, and ground in a pre-chilled Waring blender with dry ice. Tissue then was transferred from the blender to a chilled glass jar, and immediately returned to the freezer. Tissue preparation followed basic guidelines suggested in Fish Field and Laboratory Methods for Evaluating the Biological Integrity of Surface Waters (Klemm et al. 1993).

3.2.2 Chemical Analysis

Surface water and sediment samples were analyzed for volatile organics, extractable organics, pesticides, PCB's, and metals. In addition, two sediment samples were scanned for dioxin. Tissue samples were analyzed for extractable organics, pesticides, PCB's, and metals. Chemical analyses were performed by USEPA Analytical Support Branch Laboratories in Athens, Georgia. The laboratory practices, sample handling, quality control, and analytical methods that were used are described in the Laboratory Operations and Quality Control Manual (USEPA 1990) and Methods for Chemical Analysis of Water and Wastes (USEPA 1983).

4.0 RESULTS AND DISCUSSION

4.1 Surface Water Data

Results of surface water analyses are presented in Appendix A. Carbon tetrachloride was detected in surface water at 0.69 ug/L and 0.75 ug/L at Station 001 and its duplicate Station 101, respectively. Carbon tetrachloride is a colorless, nonflammable liquid used as a solvent, grain fumigant, refrigerant, and as a starting material for the manufacture of organic compounds. It was formerly used as a dry-cleaning agent and as a component of fire extinguisher solutions. References suggest that this compound may be a carcinogen (Merck 1989; USEPA 1980). Levels detected at Station 001 are well below the USEPA Region 4 Waste Management Division (WMD) freshwater screening levels of 3520 ug/L for acute toxicity and 352 ug/L for chronic effects (USEPA 1980).

Toxaphene, although listed as a primary contaminant of concern, was not detected in surface water samples collected during this study. The acute screening criteria (USEPA 1995) for toxaphene is 0.21 ug/L for saltwater. The minimum quantitation limit for toxaphene reported by USEPA Region 4 Analytical Support Branch was 5.0 ug/L. Analyses for other organic compounds and metals did not reveal any major contaminants in the surface water samples.

4.2 Sediment Data

Results of sediment sample analyses are presented in Appendix B. Additionally, results of sediment analysis for toxaphene are shown in Table 1. Toxaphene was present in four of the sediment sampling stations located in Terry and Dupree Creeks (001, 1A, 1C, and 1D) but was not detected at the remaining stations 1B and 002-005. Toxaphene concentrations in Dupree and Terry Creek sediment samples ranged from 7900J ug/kg to 230,000J ug/kg with the highest value occurring at Station 1A in Dupree Creek. Because of the complex sample matrix, the values for toxaphene could only be estimated as indicated by the "J" qualifier. Toxaphene is a complex mixture of chlorinated camphenes. It has been used widely as an insecticide on cotton, livestock, grains, vegetables, soybeans, and forage. Toxaphene is persistent in soil with a half-life of about 10 years. Toxaphene is especially hazardous to aquatic organisms which readily accumulate toxaphene from the ambient environment and biomagnify the chemical through food chains. References suggest this compound may be a carcinogen (USFWS 1985).

Table 1. Results of toxaphene analysis of sediment samples.

| | | Sediment Sampling Stations | | | | | | | | | |
|-----------|-------|----------------------------|-------|---------|--------|-------|--------|--------|------|------|------|
| Analyte | Units | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 |
| Toxaphene | ug/kg | 9100J | 8100J | 230000J | 3800JN | 7900J | 18000J | 1500JN | 390U | 830U | 710U |

U - The analyte was not present in concentrations above detection limits. The value preceding the "U" is the "minimum quantitation limit".

J - The analyte was identified in the sample, but the quantitative value is an estimate. The value preceding the "J" is the "estimated value".

JN - There is some reasonable indication that organic constituents similar to some of those found in toxaphene are present in the sample, but there is not enough proof to positively identify the compound as toxaphene.

Carbon disulfide was detected at Stations 001-005 at levels ranging from 7.5 ug/L to 33 ug/L. Carbon disulfide is clear, colorless or faintly yellow liquid, usually with a strong disagreeable odor. Carbon disulfide may be released to the environment from natural or artificial sources. It can be found in emissions and wastewater and is used in the manufacture of viscose rayon, cellophane, carbon tetrachloride, and as a solvent and fumigant. It also may be formed and released during treatment of sewage and from landfills containing municipal refuse and wastewater sludges. Carbon disulfide also has been used for insect control in stored grain and for soil fumigation to control soil fungi and deep-rooted perennial weeds. If released into water, carbon disulfide will be lost primarily due to volatilization. Carbon disulfide also may occur in the environment as a natural product of anaerobic biodegradation and it is released to the atmosphere from oceans and land masses. Current data suggests that coastal areas and other areas of high biological productivity have greater fluxes of carbon disulfide than the open ocean. Carbon disulfide would not be expected to bioconcentrate significantly in aquatic organisms. The USEPA presently has no established screening value in place for acceptable levels of carbon disulfide in sediments.

Results of dioxin analyses on sediment samples from the background Station 005 and from Station 001 located in Dupree/Terry Creek are shown in Appendix B. Some dioxin compounds were detected at both stations. However, values at Station 001 did not exceed those found at the background Station 005. Metals analysis of sediment samples did not reveal any significant contamination.

4.3 Biological organisms

Results of blue crab tissue analyses (Appendix C) revealed no substantial signs of organic or metals contamination.

Results of forage fish tissue analysis are presented in Appendix D. Forage fish were collected at seven of the nine stations sampled. Constituents which fell within the toxaphene retention time window were detected and calculated against a toxaphene standard. These constituents were present in all forage fish samples at values ranging from 1.9 JN mg/kg to 27 JN mg/kg (Table 2), with the highest concentrations occurring at Station 4 (Hercules effluent channel). However, neither the amount nor the identification of this constituent could be confirmed as indicated by the "JN" qualifier. Toxaphene is a complex mixture of compounds. When released to the environment, toxaphene constituents degrade so that the material is no longer identifiable as toxaphene, but may appear as toxaphene constituents in the sample. However, a number of other compounds from natural and anthropogenic sources may also resemble toxaphene constituents. "JN" indicates there is some reasonable indication of the presence of organic constituents similar to some of those found in toxaphene, but there is not enough proof to positively identify this compound as toxaphene in environmental samples. Therefore, the "JN" qualifier on this data indicates these values should be interpreted with caution.

Table 2. Results of toxaphene analysis of forage fish tissue samples.

| | | Forage Fish Sampling Stations | | | | | | | | | | |
|-----------|-------|-------------------------------|-------|-------|------|------|-------|-------|-------|-------|-------|-------|
| Analyte | Units | 02 | 03 | 03 | 04 | 04 | 05 | 05 | 05 | 07 | 08 | 09 |
| Toxaphene | mg/kg | 4.8JN | 5.1JN | 6.6JN | 27JN | 14JN | 5.6JN | 5.3JN | 2.3JN | 1.9JN | 2.7JN | 2.3JN |

Constituents similar to some of those found in toxaphene were also found in consumer fish (edible fish) at all four zones sampled. Concentrations of this material ranged from 1.6JN mg/kg at Zone A to 3.9JN mg/kg at Zone D (Appendix E; Table 3).

Table 3. Results of toxaphene analysis of consumer fish samples.

| | | Consumer Fish Sampling Stations | | | |
|-----------|-------|---------------------------------|---------------------------------|-----------------------------------|--------------------------------|
| Analyte | Units | Zone A Back Landing | Zone B Terry Cr. Upstream | Zone C Terry Cr. Downstream | Zone D Dupree/ Terry Cr. |
| Toxaphene | mg/kg | 1.6JN | 1.7JN | 2.6JN | 3.9JN |

No substantial metals contamination was detected in biological organisms collected during this study.

5.0 SUMMARY

Results of chemical analyses of surface water samples were similar for all five stations with the exception of low levels of carbon tetrachloride detected at Station 001. Toxaphene was not detected in surface water samples collected during this study.

Toxaphene was present at four sediment sampling stations (001, 1A, 1C, and 1D) in Terry and Dupree Creeks, but was not detected at the remaining stations (1B and 002-005). Toxaphene concentrations at the Terry and Dupree Creek stations were one to three orders of magnitude higher than the minimum detection level at the background station. No screening criterion has been established by USEPA Region 4 for toxaphene concentrations in sediment.

There was some indication that organic constituents similar to those found in toxaphene were present in all forage fish samples collected from Dupree and Terry Creeks. These constituents were two to three times higher at Station 4 (Hercules effluent) than at the remaining stations. Consumer fish filets also revealed some indication of the presence of these constituents.

Toxaphene is especially hazardous to aquatic organisms which readily accumulate this compound from the ambient environment and biomagnify the chemical through food chains. Levels of confirmed toxaphene have been detected in the sediment and may pose a risk of migration.

6.0 REFERENCES

- Klemm, Donald J., Q. J. Stober, and J. M. Lazorchak. 1993. Fish Field and Laboratory Methods for Evaluating the Biological Integrity of Surface Waters. United States Environmental Protection Agency, Environmental Monitoring Systems Laboratory, Office of Research and Development. Cincinnati, OH. 348 pp. EPA/600/R-92/111.
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- USEPA. 1980. Ambient Water Quality Criteria for Carbon Tetrachloride. United States Environmental Protection Agency. Office of Water Regulations and Standards, Criteria and Standards Division. Washington, DC.
- USFWS. 1985. Toxaphene Hazards to Fish, Wildlife, and invertebrates: a Synoptic Review. United States Department of the Interior, Fish and Wildlife Service. Washington, DC. Biological Report 85(1.4).

FIGURE 1

TERRY CREEK STUDY AREA BRUNSWICK, GA

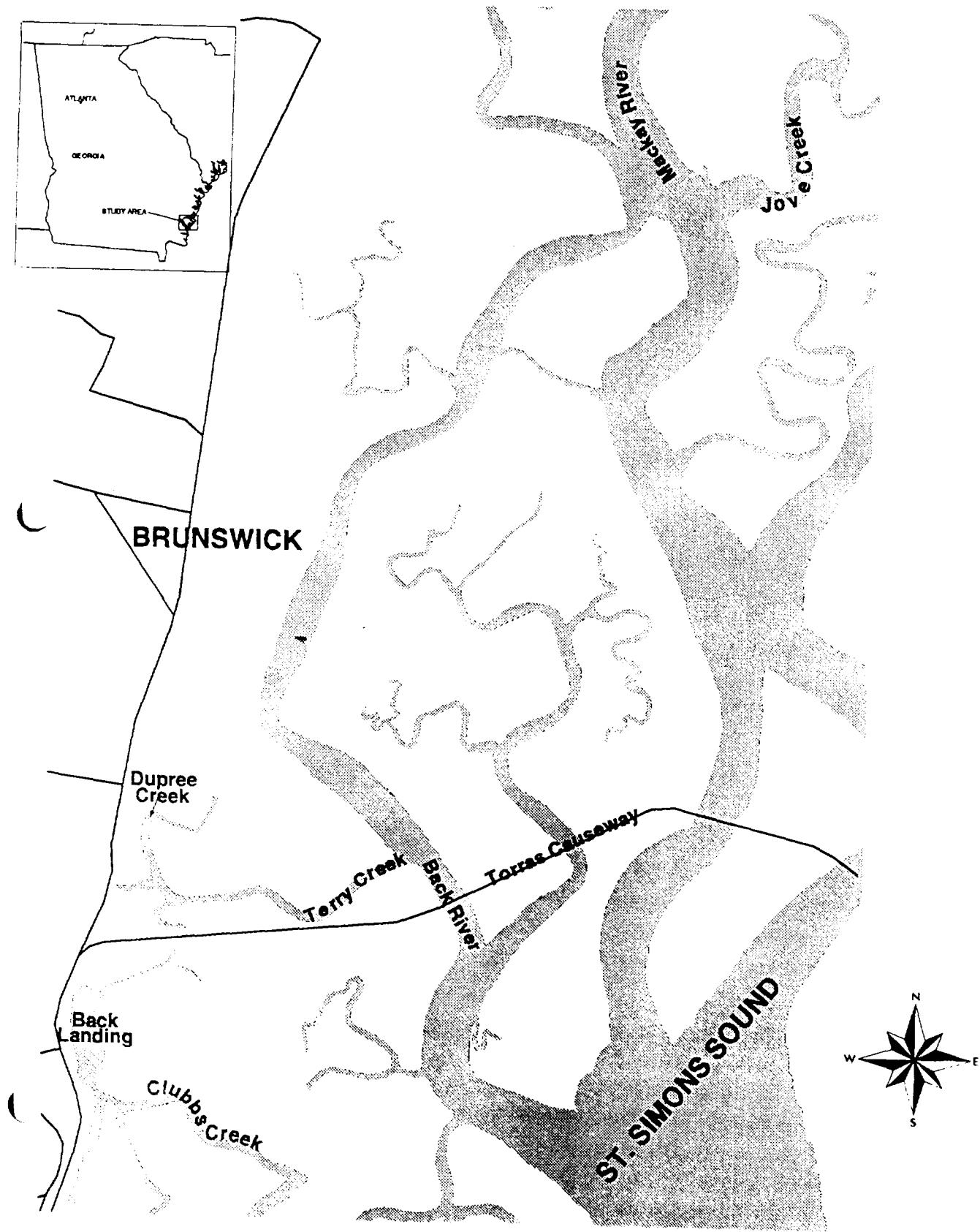
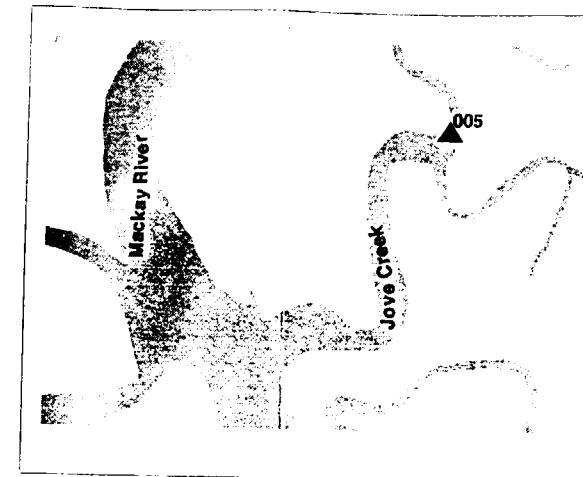
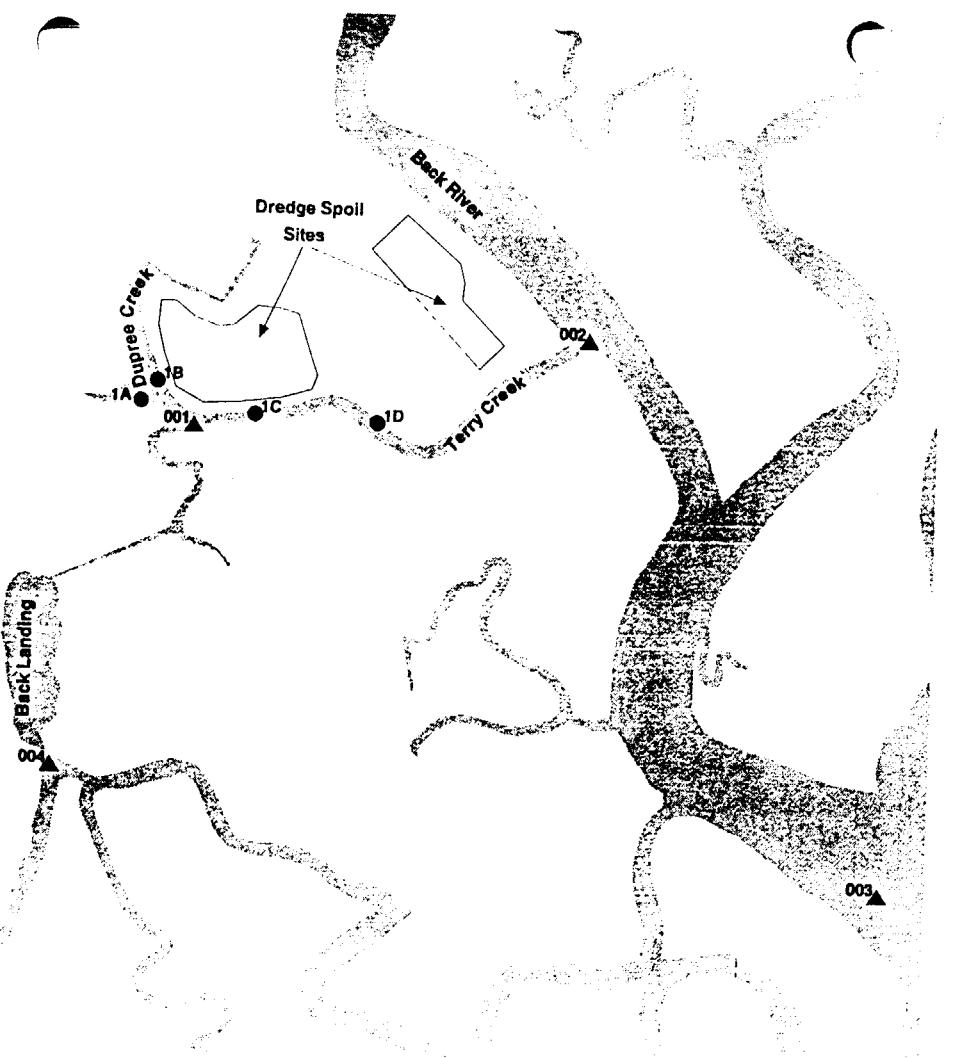


FIGURE 2
SAMPLING STATIONS
TERRY CREEK PROJECT
BRUNSWICK, GA



▲ Surface Water, Sediment &
Blue Crab Sampling Stations
● Sediment Only Sampling Stations



2
3
6
10

FIGURE 3
FORAGE FISH SAMPLING STATIONS
TERRY CREEK PROJECT
BRUNSWICK, GA

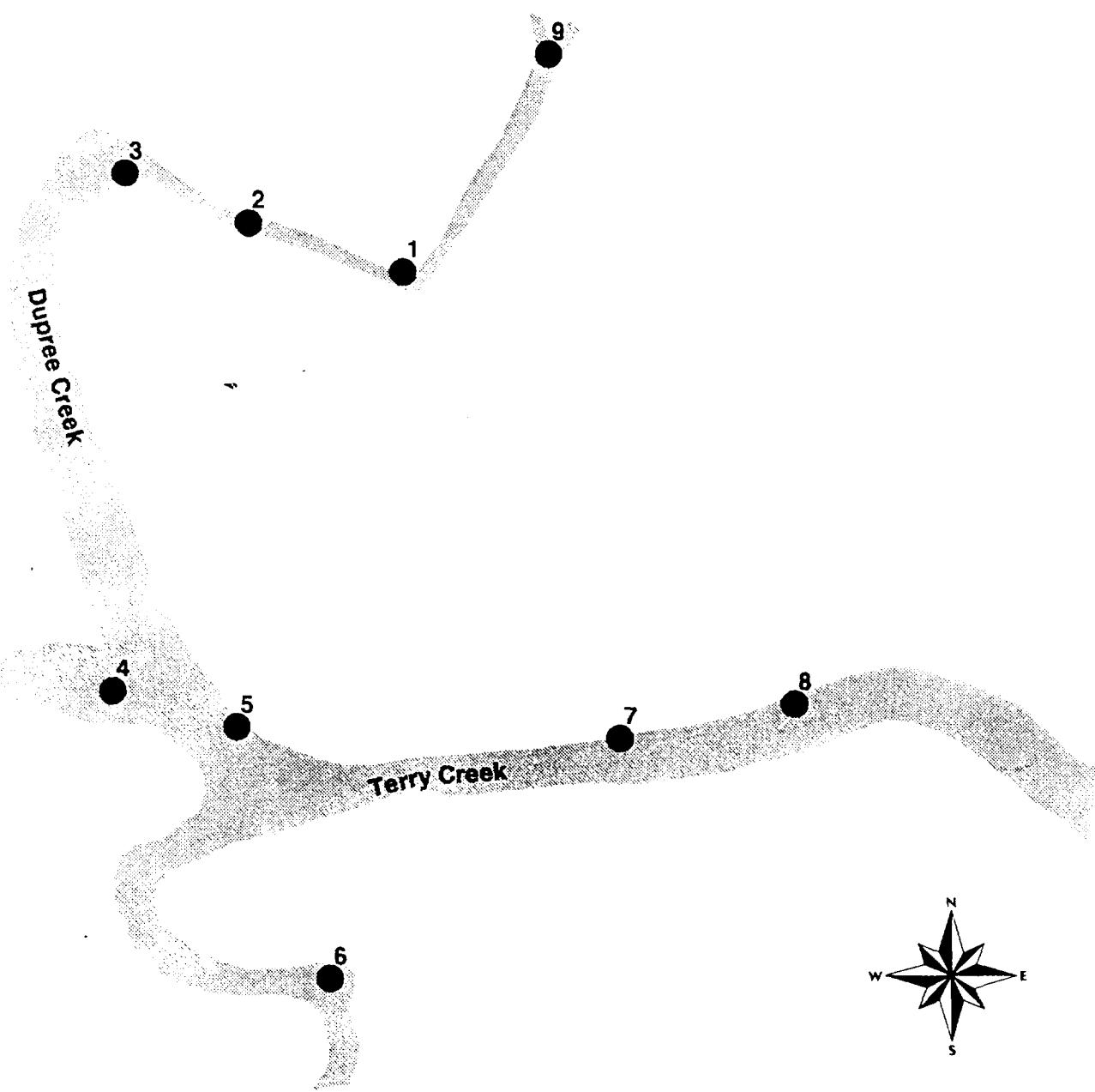


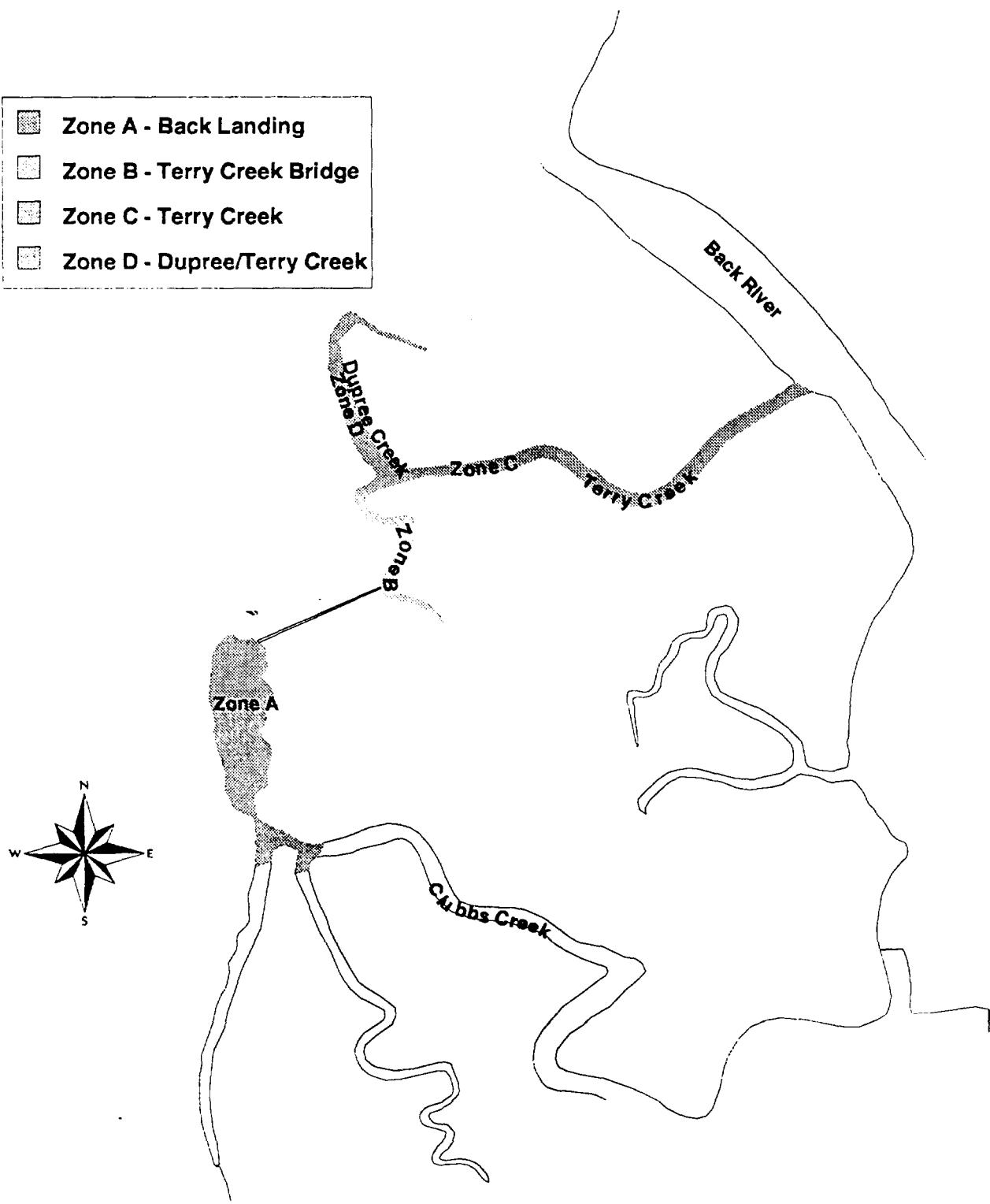
FIGURE 4

CONSUMER FISH SAMPLING STATIONS

TERRY CREEK PROJECT

BRUNSWICK, GA

- Zone A - Back Landing
- Zone B - Terry Creek Bridge
- Zone C - Terry Creek
- Zone D - Dupree/Terry Creek



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**Terry Creek Ecological Screening Evaluation
Brunswick, Georgia**

1997 Chemical Data

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Appendix D. Forage Fish Tissue Data

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- E-3. Metals

A-1. Volatile Organic Compounds in Surface Water.

Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | |
|---|-------|---------|---------|-------|-------|-------|-------|-------|
| | | 001 | 101 | 005 | 002 | 003 | 004 | Blank |
| TRICHLOROFLUOROMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CHLOROMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| BROMOMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| VINYL CHLORIDE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| METHYLENE CHLORIDE | UG/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1-DICHLOROETHENE (1,1-DICHLOROETHYLENE) | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| ACETONE | UG/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| CARBON DISULFIDE | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,1-DICHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CIS-1,2-DICHLOROETHENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 2,2-DICHLOROPROPANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| METHYL ETHYL KETONE | UG/L | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U | 25 U |
| BROMOCHLOROMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| TRANS-1,2-DICHLOROETHENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CHLOROFORM | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-DICHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,1-TRICHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1-DICHLOROPROPENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CARBON TETRACHLORIDE | UG/L | 0.69 AJ | 0.75 AJ | 1 U | 1 U | 1 U | 1 U | 1 U |
| BROMODICHLOROMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| METHYL ISOBUTYL KETONE | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| 1,2-DICHLOROPROPANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| DIBROMOMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| TRANS-1,3-DICHLOROPROPENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| TRICHLOROETHENE (TRICHLOROETHYLENE) | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| BENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| DIBROMOCHLOROMETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,2-TRICHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CIS-1,3-DICHLOROPROPENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| BROMOFORM | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| BROMOBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,2,2-TETRACHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |

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A-1 (cont). Volatile Organic Compounds in Surface Water.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | |
|---|-------|---------|-------|-------|-------|-------|-------|
| | | 001 | 101 | 005 | 002 | 003 | 004 |
| TETRACHLOROETHENE (TETRACHLOROETHYLENE) | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,3-DICHLOROPROPANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| METHYL BUTYL KETONE | UG/L | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| TOLUENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| CHLOROBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,1,1,2-TETRACHLOROETHANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| ETHYL BENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| (M- AND/OR P-)XYLENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| O-XYLENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| STYRENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-TRICHLOROPROPANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| O-CHLOROTOLUENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| P-CHLOROTOLUENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,3-DICHLOROBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,4-DICHLOROBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-DICHLOROBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-DIBROMOETHANE (EDB) | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| ISOPROPYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| N-PROPYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,3,5-TRIMETHYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| TERT-BUTYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-TRIMETHYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| SEC-BUTYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| P-ISOPROPYLTOLUENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| N-BUTYLBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-DIBROMO-3-CHLOROPROPANE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-TRICHLOROBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| HEXACHLORO-1,3-BUTADIENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-TRICHLOROBENZENE | UG/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |

2
3

6
7

A-2. Extractable Organic Compounds in Surface Water.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | |
|-------------------------------------|-------|---------|------|------|------|------|------|
| | | 001 | 101 | 002 | 003 | 004 | 005 |
| BIS(2-CHLOROETHYL) ETHER | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| HEXACHLOROETHANE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| BIS(2-CHLOROISOPROPYL) ETHER | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| N-NITROSODI-N-PROPYLAMINE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| NITROBENZENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| HEXACHLOROBUTADIENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-METHYLNAPHTHALENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 1,2,4-TRICHLOROBENZENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| NAPHTHALENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-CHLOROANILINE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| BIS(2-CHLOROETHOXY)METHANE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| ISOPHORONE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| HEXACHLOROCYCLOPENTADIENE (HCCP) | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-CHLORONAPHTHALENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-NITROANILINE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| ACENAPHTHYLENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| ACENAPHTHENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| DIMETHYL PHTHALATE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| DIBENZOFURAN | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-DINITROTOLUENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,6-DINITROTOLUENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 3-NITROANILINE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-CHLOROPHENYL PHENYL ETHER | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-NITROANILINE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| FLUORENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| DIETHYL PHTHALATE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| N-NITROSODIPHENYLAMINE/DIPHENYLAMIN | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| HEXACHLOROBENZENE (HCB) | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-BROMOPHENYL PHENYL ETHER | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| PHENANTHRENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| ANTHRACENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| DI-N-BUTYLPHthalate | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| FLUORANTHENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| PYRENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |

A-2 (cont). Extractable Organic Compounds in Surface Water.

Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | |
|-------------------------------|-------|---------|------|------|------|------|
| | | 001 | 101 | 002 | 003 | 004 |
| BENZYL BUTYL PHTHALATE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| BENZO(A)ANTHRACENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| CHRYSENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 3,3'-DICHLOROBENZIDINE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| DI-N-OCTYLPHthalate | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| BENZO(B AND/OR K)FLUORANTHENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| BENZO-A-PYRENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| INDENO (1,2,3-CD) PYRENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| DIBENZO(A,H)ANTHRACENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| BENZO(GHI)PERYLENE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-CHLOROPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-METHYLPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| (3-AND/OR 4-)METHYLPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2-NITROPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| PHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-DIMETHYLPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-DICHLOROPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4,6-TRICHLOROPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4,5-TRICHLOROPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 4-CHLORO-3-METHYLPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| 2,4-DINITROPHENOL | UG/L | 20 U | 20 U | 20 U | 20 U | 20 U |
| 2-METHYL-4,6-DINITROPHENOL | UG/L | 20 U | 20 U | 20 U | 20 U | 20 U |
| PENTACHLOROPHENOL | UG/L | 20 U | 20 U | 20 U | 20 U | 20 U |
| 4-NITROPHENOL | UG/L | 20 U | 20 U | 20 U | 20 U | 20 U |
| 2,3,4,6-TETRACHLOROPHENOL | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |
| CARBAZOLE | UG/L | 10 U | 10 U | 10 U | 10 U | 10 U |

A-3. Pesticides/ B's in Surface Water.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | |
|-----------------------------|-------|---------|--------|--------|--------|--------|
| | | 001 | 101 | 002 | 003 | 004 |
| ALDRIN | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| HEPTACHLOR | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| HEPTACHLOR EPOXIDE | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| ALPHA-BHC | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| BETA-BHC | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| GAMMA-BHC (LINDANE) | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| DELTA-BHC | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| ENDOSULFAN I (ALPHA) | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| DIELDRIN | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 4,4'-DDT (P,P'-DDT) | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 4,4'-DDE (P,P'-DDE) | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| 4,4'-DDD (P,P'-DDD) | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| ENDRIN | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| ENDOSULFAN II (BETA) | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| ENDOSULFAN SULFATE | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| CHLORDANE (TECH. MIXTURE) / | UG/L | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| PCB-1242 (AROCLOR 1242) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| PCB-1254 (AROCLOR 1254) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| PCB-1221 (AROCLOR 1221) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| PCB-1232 (AROCLOR 1232) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| PCB-1248 (AROCLOR 1248) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| PCB-1260 (AROCLOR 1260) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| PCB-1016 (AROCLOR 1016) | UG/L | 0.5 U | 0.5 U | 0.5 U | 0.5 U | 0.5 U |
| TOXAPHENE | UG/L | 5 U | 5 U | 5 U | 5 U | 5 U |
| METHOXYCHLOR | UG/L | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| ENDRIN KETONE | UG/L | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |

A-4. Metals Surface Water.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | |
|---------------|-------|---------|-------|-------|-------|-------|-------|
| | | 001 | 101 | 002 | 003 | 004 | 005 |
| SILVER | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| ARSENIC | UG/L | 120 U | 120 U | 120 U | 120 U | 120 U | 120 U |
| BARIUM | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| BERYLLIUM | UG/L | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| CADMIUM | UG/L | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| COBALT | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| CHROMIUM | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| COPPER | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| MOLYBDENUM | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| NICKEL | UG/L | 80 U | 80 U | 80 U | 80 U | 80 U | 80 U |
| LEAD | UG/L | 160 U | 160 U | 160 U | 160 U | 160 U | 160 U |
| ANTIMONY | UG/L | 120 U | 120 U | 120 U | 120 U | 120 U | 120 U |
| SELENIUM | UG/L | 160 U | 160 U | 160 U | 160 U | 160 U | 160 U |
| TIN | UG/L | 100 U | 100 U | 100 U | 100 U | 100 U | 100 U |
| STRONTIUM | UG/L | 2900 | 3200 | 2800 | 3300 | 3200 | 1700 |
| TELLURIUM | UG/L | 200 U | 200 U | 200 U | 200 U | 200 U | 200 U |
| TITANIUM | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| THALLIUM | UG/L | 400 U | 400 U | 400 U | 400 U | 400 U | 400 U |
| VANADIUM | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| YTTRIUM | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| ZINC | UG/L | 40 U | 40 U | 40 U | 40 U | 40 U | 40 U |
| TOTAL MERCURY | UG/L | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| ALUMINUM | UG/L | 940 | 790 U | 870 | 870 | 730 | 660 |
| MANGANESE | UG/L | 140 | 140 | 54 | 46 | 130 | 60 |
| CALCIUM | MG/L | 170 | 180 | 160 | 190 | 190 | 97 |
| MAGNESIUM | MG/L | 490 | 520 | 480 | 570 | 550 | 280 |
| IRON | MG/L | 0.49 | 0.48 | 0.44 | 0.53 | 0.43 | 0.55 |
| SODIUM | MG/L | 4100 | 4400 | 4000 | 4700 | 4600 | 2400 |
| POTASSIUM | MG/L | 170 | 170 | 170 | 190 | 180 | 96 |

B-1. Volatile Organic Compounds in Sediment.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | | | |
|---------------------------|-------|---------|-------|--------|--------|--------|--------|-------|-------|-------|-------|-------|
| | | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 | BLANK |
| TRICHLOROFLUOROMETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CHLOROMETHANE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| BROMOMETHANE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| VINYL CHLORIDE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CHLOROETHANE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| METHYLENE CHLORIDE | UG/KG | 240 U | 280 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 110 U | 110 U | 250 U | 280 U | 32 U |
| 1,1-DICHLOROETHENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| ACETONE | UG/KG | 140 U | 140 U | 440 J | 280 UJ | 210 UJ | 150 UJ | 53 U | 51 U | 490 U | 160 U | 19 U |
| CARBON DISULFIDE | UG/KG | 19 | 29 | 21 J | 22 J | 21 UJ | 10 J | 7.5 | 14 | 33 J | 20 | 1.9 U |
| 1,1-DICHLOROETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CIS-1,2-DICHLOROETHENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 2,2-DICHLOROPROPANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| METHYL ETHYL KETONE | UG/KG | 140 U | 140 U | 220 UJ | 280 UJ | 210 UJ | 150 UJ | 53 U | 51 U | 490 U | 160 U | 19 U |
| BROMOCHLOROMETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| TRANS-1,2-DICHLOROETHENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CHLOROFORM | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2-DICHLOROETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,1,1-TRICHLOROETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,1-DICHLOROPROPENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CARBON TETRACHLORIDE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| BROMODICHLOROMETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| METHYL ISOBUTYL KETONE | UG/KG | 34 U | 36 U | 55 UJ | 70 UJ | 53 UJ | 37 UJ | 13 U | 13 U | 120 U | 39 U | 4.3 J |
| 1,2-DICHLOROPROPANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| DIBROMOMETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| TRANS-1,3-DICHLOROPROPENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| TRICHLOROETHENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| BENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| DIBROMOCHLOROMETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,1,2-TRICHLOROETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CIS-1,3-DICHLOROPROPENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| BROMOFORM | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| BROMOBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,1,2,2-TETRACHLOROETHANE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| TETRACHLOROETHENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |

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B-2. Extractable Organic Compounds in Sediments.

Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | | |
|-------------------------------------|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 |
| BIS(2-CHLOROETHYL) ETHER | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| HEXACHLOROETHANE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BIS(2-CHLOROISOPROPYL) ETHER | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| N-NITROSO-DI-N-PROPYLAMINE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| NITROBENZENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| HEXACHLOROBUTADIENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2-METHYLNAPHTHALENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 1,2,4-TRICHLOROBENZENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| NAPHTHALENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 4-CHLOROANILINE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BIS(2-CHLOROETHOXY)METHANE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| ISOPHORONE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| HEXACHLOROCYCLOPENTADIENE (HCCP) | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2-CHLORONAPHTHALENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2-NITROANILINE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| ACENAPHTHYLENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| ACENAPHTHENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| DIMETHYL PHTHALATE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| DIBENZOFURAN | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,4-DINITROTOLUENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,6-DINITROTOLUENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 3-NITROANILINE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 4-CHLOROPHENYL PHENYL ETHER | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 4-NITROANILINE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| FLUORENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| DIETHYL PHTHALATE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| N-NITROSODIPHENYLAMINE/DIPHENYLAMIN | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| HEXACHLOROBENZENE (HCB) | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 4-BROMOPHENYL PHENYL ETHER | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| PHENANTHRENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| ANTHRACENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| DI-N-BUTYLPHthalate | UG/KG | 4300 J | 4300 J | 5700 J | 4800 J | 2800 J | 2700 U | 2700 J | 1900 U | 4200 U | 3900 U |
| FLUORANTHENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |

B-2 (cont). Extractable Organic Compounds in Sediments.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | | |
|-------------------------------|-------|---------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| | | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 |
| PYRENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BENZYL BUTYL PHTHALATE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BENZO(A)ANTHRACENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| CHRYSENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 3,3'-DICHLOROBENZIDINE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| DI-N-OCTYLPHthalate | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BENZO(B AND/OR K)FLUORANTHENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BENZO-A-PYRENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| INDENO (1,2,3-CD) PYRENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| DIBENZO(A,H)ANTHRACENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| BENZO(GHI)PERYLENE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2-CHLOROPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2-METHYLPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| (3-AND/OR 4-)METHYLPHENOL | UG/KG | 4300 U | 4300 U | 5000 J | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2-NITROPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| PHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,4-DIMETHYLPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,4-DICHLOROPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,4,6-TRICHLOROPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,4,5-TRICHLOROPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 4-CHLORO-3-METHYLPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| 2,4-DINITROPHENOL | UG/KG | 8500 U | 8500 U | 11000 U | 9500 U | 7100 U | 5400 U | 5500 U | 3900 U | 8300 U | 7700 U |
| 2-METHYL-4,6-DINITROPHENOL | UG/KG | 8500 U | 8500 U | 11000 U | 9500 U | 7100 U | 5400 U | 5500 U | 3900 U | 8300 U | 7700 U |
| PENTACHLOROPHENOL | UG/KG | 8500 U | 8500 U | 11000 U | 9500 U | 7100 U | 5400 U | 5500 U | 3900 U | 8300 U | 7700 U |
| 4-NITROPHENOL | UG/KG | 8500 U | 8500 U | 11000 U | 9500 U | 7100 U | 5400 U | 5500 U | 3900 U | 8300 U | 7700 U |
| 2,3,4,6-TETRACHLOROPHENOL | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| CARBAZOLE | UG/KG | 4300 U | 4300 U | 5700 U | 4800 U | 3600 U | 2700 U | 2700 U | 1900 U | 4200 U | 3900 U |
| % MOISTURE | % | 75.8 | | | | 33.9 | 45 | 53.2 | 51.2 | 74.7 | 73.2 |

B-1 (cont). Volatile Organic Compounds in Sediment.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | | | |
|-----------------------------|-------|---------|------|--------|--------|--------|-------|-------|-------|-------|------|-------|
| | | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 | BLANK |
| 1,3-DICHLOROPROPANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| METHYL BUTYL KETONE | UG/KG | 34 U | 36 U | 55 UJ | 70 UJ | 53 UJ | 37 UJ | 13 U | 13 U | 120 U | 39 U | 4 J |
| TOLUENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| CHLOROBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,1,1,2-TETRACHLOROETHANE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| ETHYL BENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| (M- AND/OR P-)XYLENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| O-XYLENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| STYRENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2,3-TRICHLOROPROPANE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| O-CHLOROTOLUENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| P-CHLOROTOLUENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,3-DICHLOROBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,4-DICHLOROBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2-DICHLOROBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2-DIBROMOETHANE (EDB) | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| ISOPROPYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| N-PROPYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,3,5-TRIMETHYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| TERT-BUTYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2,4-TRIMETHYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| SEC-BUTYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| P-ISOPROPYLTOLUENE | UG/KG | 14 U | 14 U | 31 J | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| N-BUTYLBENZENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2-DIBROMO-3-CHLOROPROPANE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2,4-TRICHLOROBENZENE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| HEXACHLORO-1,3-BUTADIENE | UG/KG | 14 U | 14 U | 22 UJ | 28 UJ | 21 UJ | 15 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| 1,2,3-TRICHLOROBENZENE | UG/KG | 14 U | 14 U | 110 UJ | 140 UJ | 110 UJ | 75 UJ | 5.3 U | 5.1 U | 49 U | 16 U | 1.9 U |
| % MOISTURE | % | 76 | 75.3 | 77.1 | 74.6 | 66.6 | 52.3 | 53.2 | 48.8 | 74.7 | 71 | 10 |

B-2 (cont.). Miscellaneous Extractable Compounds in Sediment.
Terry Creek, Brunswick, Georgia. 1997.

| Compound | Station | | |
|---|----------|---------|--------|
| | 1A | 1D | 005 |
| 1 UNIDENTIFIED COMPOUND | | | 4000 J |
| 10 UNIDENTIFIED COMPOUNDS | 100000 J | | |
| 3 UNIDENTIFIED COMPOUNDS | | 10000 J | |
| CAMPHENENE UG/KG | 300 JN | | |
| DECAHYDROTRIMETHYLMETHANOAZULENE | 7000 JN | | |
| METHYL(METHYLETHYL)BENZENE | 40000 JN | | |
| METHYL(METHYLETHYL)CYCLOHEXANE | 20000 JN | | |
| OCTAHYDRO(DIMETHYLETHYL)PHENANTHRENECARBOXYLIC ACID, METHYL ESTER | 6000 JN | | |
| PINENE | 8000 JN | | |
| TRIMETHYLBICYCLOHEPTANONE | 8000 JN | | |
| TWO UNIDENTIFIED CO UG/KG | 800 JN | | |

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B-3. Pesticides / PCB's in Sediment.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | | |
|---------------------------|---------|---------|--------|----------|---------|--------|---------|---------|-------|-------|-------|
| | | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 |
| ALDRIN | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| HEPTACHLOR | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| HEPTACHLOR EPOXIDE | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| ALPHA-BHC | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| BETA-BHC | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| GAMMA-BHC (LINDANE) | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| DELTA-BHC | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| ENDOSULFAN I (ALPHA) | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| DIELDRIN | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| 4,4'-DDT (P,P'-DDT) | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| 4,4'-DDE (P,P'-DDE) | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| 4,4'-DDD (P,P'-DDD) | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| ENDRIN | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| ENDOSULFAN II (BETA) | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| ENDOSULFAN SULFATE | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| CHLORDANE (TECH. MIXTURE) | / UG/KG | 800 U | 530 U | 11000 U | 600 U | 440 U | 3400 U | 200 U | 24 U | 52 U | 44 U |
| PCB-1242 (AROCLOR 1242) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1254 (AROCLOR 1254) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1221 (AROCLOR 1221) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1232 (AROCLOR 1232) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1248 (AROCLOR 1248) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1260 (AROCLOR 1260) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1016 (AROCLOR 1016) | UG/KG | 1600 U | 1100 U | 22000 U | 1200 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| PCB-1268 (AROCLOR 1268) | UG/KG | 530 U | 530 U | 22000 U | 1100 U | 890 U | 6800 U | 500 U | 48 U | 100 U | 89 U |
| TOXAPHENE | UG/KG | 9100 J | 8100 J | 230000 J | 3800 JN | 7900 J | 18000 J | 1500 JN | 390 U | 830 U | 710 U |
| METHOXYCHLOR | UG/KG | 430 U | 420 U | 5700 U | 240 U | 180 U | 1400 U | 200 U | 19 U | 41 U | 36 U |
| ENDRIN KETONE | UG/KG | 210 U | 210 U | 5700 U | 240 U | 180 U | 1400 U | 50 U | 10 U | 21 U | 18 U |
| % MOISTURE | % | 76 | 75 | 79 | 77 | 66 | 55 | 53 | 49 | 75 | 71 |

B-4. Metals in Sediment.
Terry Creek, Brunswick, Georgia. 1997

| Analyte | Units | Station | | | | | | | | | |
|---------------|-------|---------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| | | 001 | 101 | 1A | 1B | 1C | 1D | 002 | 003 | 004 | 005 |
| SILVER | MG/KG | 3 U | 3 U | 3 U | 3 U | 4 U | 2 U | 2 U | 2 U | 3 U | 3 U |
| ARSENIC | MG/KG | 15 | 14 | 14 | 16 | 19 | 10 | 12 | 8.9 | 17 | 17 |
| BARIUM | MG/KG | 28 | 32 | 44 | 27 | 36 | 20 | 22 | 18 | 26 | 39 |
| BERYLLIUM | MG/KG | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 2 U | 1 U | 1 U | 1 U | 1.5 U | 1.6 |
| CADMUM | MG/KG | 1.5 U | 1.5 U | 1.5 U | 1.5 U | 2 U | 1 U | 1 U | 1 U | 1.5 U | 1.5 U |
| COBALT | MG/KG | 7 | 8.3 | 6.5 | 6.9 | 7.3 | 4.9 | 4.6 | 4.2 | 7.2 | 9.8 |
| CHROMIUM | MG/KG | 44 | 51 | 44 | 42 | 55 | 28 | 30 | 26 | 43 | 52 |
| COPPER | MG/KG | 15 | 17 | 31 | 12 | 14 | 9.6 | 7.2 | 5.6 | 10 | 15 |
| MOLYBDENUM | MG/KG | 3 U | 3 U | 3 U | 3 U | 4 U | 2 U | 2 U | 2 U | 3 U | 3 U |
| NICKEL | MG/KG | 12 | 16 | 18 | 12 | 15 | 7.9 | 8.6 | 6.1 | 10 | 18 |
| LEAD | MG/KG | 23 | 24 | 32 | 22 | 26 | 12 | 12 | 10 | 21 | 24 |
| ANTIMONY | MG/KG | 9 U | 9 U | 9 U | 9 U | 12 U | 6 U | 6 U | 6 U | 9 U | 9 U |
| SELENIUM | MG/KG | 12 U | 8 U | 12 U | 12 U | 16 U | 8 U | 8 U | 8 U | 12 U | 12 U |
| TIN | MG/KG | 7.5 U | 8 U | 8.5 U | 9 U | 10 U | 5 U | 6 U | 6 U | 7.5 U | 8 U |
| STRONTIUM | MG/KG | 56 | 59 | 79 | 63 | 70 | 48 | 100 | 150 | 57 | 61 |
| TELLURIUM | MG/KG | 15 U | 15 U | 15 U | 15 U | 20 U | 10 U | 10 U | 10 U | 15 U | 15 U |
| TITANIUM | MG/KG | 260 | 250 | 250 | 240 | 280 | 240 | 220 | 230 | 240 | 310 |
| THALLIUM | MG/KG | 30 U | 30 U | 30 U | 30 U | 40 U | 20 U | 20 U | 20 U | 30 U | 30 U |
| VANADIUM | MG/KG | 57 | 63 | 55 | 56 | 74 | 37 | 39 | 32 | 53 | 74 |
| YTTRIUM | MG/KG | 17 | 19 | 15 | 17 | 19 | 12 | 13 | 12 | 14 | 21 |
| ZINC | MG/KG | 69 | 78 | 110 | 64 | 75 | 35 | 41 | 34 | 55 | 79 |
| TOTAL MERCURY | MG/KG | 0.075 | 0.8 | 0.12 | 0.053 | 0.068 | 0.052 | 0.05 U | 0.05 U | 0.074 | 0.056 |
| ALUMINUM | MG/KG | 30000 | 35000 | 27000 | 27000 | 37000 | 18000 | 19000 | 15000 | 27000 | 35000 |
| MANGANESE | MG/KG | 260 | 260 | 260 | 330 | 520 | 310 | 360 | 260 | 350 | 510 |
| CALCIUM | MG/KG | 4200 | 4300 | 7600 | 5600 | 5400 | 8400 | 14000 | 25000 | 5000 | 4100 |
| MAGNESIUM | MG/KG | 6700 | 7300 | 7000 | 6200 | 7600 | 4100 | 5000 | 4700 | 6400 | 6600 |
| IRON | MG/KG | 25000 | 28000 | 24000 | 24000 | 32000 | 17000 | 20000 | 16000 | 24000 | 33000 |
| SODIUM | MG/KG | 19000 | 19000 | 20000 | 16000 | 14000 | 8600 | 11000 | 9100 | 18000 | 8700 |
| POTASSIUM | MG/KG | 3700 | 4300 | 3500 | 3600 | 4200 | 2200 | 2000 | 2000 | 3700 | 3400 |
| % MOISTURE | % | 70 | 74 | 77 | 75 | 67 | 52 | 53 | 53 | 73 | 71 |

C-12-6

DIN SCAN

Facility: TERRY CREEK DRUDGE BRUNSWICK, GA
 Program: SSF
 Id/Station: 001
 Media: SOIL

Collected By:
 Beginning: 02/19/97 14:10
 Ending:

SAS Number: SPR

D Number: 001 Org Contractor: SWOK

| RESULTS | UNITS | ANALYTE |
|---------|-------|--|
| 10U | NG/KG | 2,3,7,8-TETRACHLORODIBENZODIOXIN |
| 10UJ | NG/KG | TETRACHLORODIBENZODIOXIN (TOTAL) |
| 25U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZODIOXIN |
| 25UJ | NG/KG | PENTACHLORODIBENZODIOXIN (TOTAL) |
| 25U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN |
| 25U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN |
| 25U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN |
| 8.6J | NG/KG | HEXACHLORODIBENZODIOXIN (TOTAL) |
| 25U | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN |
| 9.3J | NG/KG | HEPTACHLORODIBENZODIOXIN (TOTAL) |
| 77 | NG/KG | OCTACHLORODIBENZODIOXIN |
| 10U | NG/KG | 2,3,7,8-TETRACHLORODIBENZOFURAN |
| 14J | NG/KG | TETRACHLORODIBENZOFURAN (TOTAL) |
| 25U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZOFURAN |
| 25U | NG/KG | 2,3,4,7,8-PENTACHLORODIBENZOFURAN |
| 22J | NG/KG | PENTACHLORODIBENZOFURAN (TOTAL) |
| 25U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZOFURAN |
| 25U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZOFURAN |
| 25U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZOFURAN |
| 25U | NG/KG | 2,3,4,6,7,8-HEXACHLORODIBENZOFURAN |
| 25UJ | NG/KG | HEXACHLORODIBENZOFURAN (TOTAL) |
| 25U | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN |
| 25U | NG/KG | 1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN |
| 25UJ | NG/KG | HEPTACHLORODIBENZOFURAN (TOTAL) |
| 50U | NG/KG | OCTACHLORODIBENZOFURAN |
| 0.08 | NG/KG | TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89) |
| 79 | % | % MOISTURE |

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

C-confirmed by qcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 3755 FY 1997 Project: 97-0146

DIOXIN SCAN

Facility: TERRY CREEK DRUDGE

BRUNSWICK, GA

Program: SSF

Id/Station: 005

Media: SOIL

Collected By:
Beginning: 02/19/97 15:20
Ending:

SAS Number: SPR

D Number: 005

Org Contractor: SWOK

RESULTS UNITS ANALYTE

| | | |
|-------|-------|--|
| 7.0U | NG/KG | 2,3,7,8-TETRACHLORODIBENZODIOXIN |
| 7.0UJ | NG/KG | TETRACHLORODIBENZODIOXIN (TOTAL) |
| 18U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZODIOXIN |
| 18UJ | NG/KG | PENTACHLORODIBENZODIOXIN (TOTAL) |
| 18U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN |
| 18U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN |
| 18U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN |
| 14J | NG/KG | HEXACHLORODIBENZODIOXIN (TOTAL) |
| 8.4J | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN |
| 19J | NG/KG | HEPTACHLORODIBENZODIOXIN (TOTAL) |
| 80 | NG/KG | OCTACHLORODIBENZODIOXIN |
| 7.0U | NG/KG | 2,3,7,8-TETRACHLORODIBENZOFURAN |
| 7.0UJ | NG/KG | TETRACHLORODIBENZOFURAN (TOTAL) |
| 18U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZOFURAN |
| 18U | NG/KG | 2,3,4,7,8-PENTACHLORODIBENZOFURAN |
| 18UJ | NG/KG | PENTACHLORODIBENZOFURAN (TOTAL) |
| 18U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZOFURAN |
| 18U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZOFURAN |
| 18U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZOFURAN |
| 18U | NG/KG | 2,3,4,6,7,8-HEXACHLORODIBENZOFURAN |
| 18UJ | NG/KG | HEXACHLORODIBENZOFURAN (TOTAL) |
| 18U | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN |
| 18U | NG/KG | 1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN |
| 18UJ | NG/KG | HEPTACHLORODIBENZOFURAN (TOTAL) |
| 35U | NG/KG | OCTACHLORODIBENZOFURAN |
| 0.16J | NG/KG | TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89) |
| 72 | % | % MOISTURE |

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. the number is the minimum quantitation limit.

R-qc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 3757 FY 1997 Project: 97-0146

DID SCAN

Facility: TERRY CREEK DRUDGE

BRUNSWICK, GA

Program: SSF

Id/Station: LVPE

Media: LVPE

Collected By:

Beginning: 02/20/97 10:45

Ending:

#BJV279

SAS Number: SPR

D Number: LVPE

Org Contractor: SWOK

RESULTS UNITS ANALYTE

| | | |
|-------|-------|--|
| 260 | NG/KG | 2,3,7,8-TETRACHLORODIBENZODIOXIN |
| 2800J | NG/KG | TETRACHLORODIBENZODIOXIN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZODIOXIN |
| 5.0UJ | NG/KG | PENTACHLORODIBENZODIOXIN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN |
| 5.0U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN |
| 5.0U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN |
| 5.0UJ | NG/KG | HEXACHLORODIBENZODIOXIN (TOTAL) |
| 0.27J | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN |
| 0.27J | NG/KG | HEPTACHLORODIBENZODIOXIN (TOTAL) |
| 10U | NG/KG | OCTACHLORODIBENZODIOXIN |
| 2.0U | NG/KG | 2,3,7,8-TETRACHLORODIBENZOFURAN |
| 1.1J | NG/KG | TETRACHLORODIBENZOFURAN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 2,3,4,7,8-PENTACHLORODIBENZOFURAN |
| 5.0UJ | NG/KG | PENTACHLORODIBENZOFURAN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 2,3,4,6,7,8-HEXACHLORODIBENZOFURAN |
| 5.0UJ | NG/KG | HEXACHLORODIBENZOFURAN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN |
| 5.0UJ | NG/KG | HEPTACHLORODIBENZOFURAN (TOTAL) |
| 10U | NG/KG | OCTACHLORODIBENZOFURAN |
| -- | NG/KG | TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89) |
| NA | % | % MOISTURE |

A-average value, NA-not analyzed, NAI-interferences, J-estimated value, N-presumptive evidence of presence of material.

K-actual value is known to be less than value given, L-actual value is known to be greater than value given, U-material was analyzed for but not detected, the number is the minimum quantitation limit.

R-qc indicates that data unusable, compound may or may not be present, resampling and reanalysis is necessary for verification.

^ confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

Sample 3758 FY 1997 Project: 97-0146

Collected By:
 Beginning: 02/20/97 10:45
 Ending:

DION SCAN

Facility: TERRY CREEK DRUDGE

BRUNSWICK, GA

Program: SSF

Id/Station: QCBLK

Media: QCBLK

SAS Number: SPR

#PC01196

D Number: BLK

Org Contractor: SWOK

| RESULTS | UNITS | ANALYTE |
|---------|-------|--|
| 2.0U | NG/KG | 2,3,7,8-TETRACHLORODIBENZODIOXIN |
| 2.0UJ | NG/KG | TETRACHLORODIBENZODIOXIN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZODIOXIN |
| 5.0UJ | NG/KG | PENTACHLORODIBENZODIOXIN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZODIOXIN |
| 5.0U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZODIOXIN |
| 5.0U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZODIOXIN |
| 5.0UJ | NG/KG | HEXACHLORODIBENZODIOXIN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZODIOXIN |
| 5.0U | NG/KG | HEPTACHLORODIBENZODIOXIN (TOTAL) |
| 1.5J | NG/KG | OCTACHLORODIBENZODIOXIN |
| 2.0U | NG/KG | 2,3,7,8-TETRACHLORODIBENZOFURAN |
| 2.0UJ | NG/KG | TETRACHLORODIBENZOFURAN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,7,8-PENTACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 2,3,4,7,8-PENTACHLORODIBENZOFURAN |
| 5.0UJ | NG/KG | PENTACHLORODIBENZOFURAN (TOTAL) |
| 5.0U | NG/KG | 1,2,3,4,7,8-HEXACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 1,2,3,6,7,8-HEXACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 1,2,3,7,8,9-HEXACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 2,3,4,6,7,8-HEXACHLORODIBENZOFURAN |
| 5.0UJ | NG/KG | HEXACHLORODIBENZOFURAN (TOTAL) |
| 0.16J | NG/KG | 1,2,3,4,6,7,8-HEPTACHLORODIBENZOFURAN |
| 5.0U | NG/KG | 1,2,3,4,7,8,9-HEPTACHLORODIBENZOFURAN |
| 0.16J | NG/KG | HEPTACHLORODIBENZOFURAN (TOTAL) |
| 10U | NG/KG | OCTACHLORODIBENZOFURAN |
| --- | NG/KG | TEQ (TOXIC. EQUIV. VALUE, FROM I-TEF/89) |
| NA | % | % MOISTURE |

A-average value. NA-not analyzed. NAI-interferences. J-estimated value. N-presumptive evidence of presence of material.

K-actual value is known to be less than value given. L-actual value is known to be greater than value given. U-material was analyzed for but not detected. The number is the minimum quantitation limit.

R-rc indicates that data unusable. compound may or may not be present. resampling and reanalysis is necessary for verification.

C-confirmed by gcms: 1.when no value is reported, see chlordane constituents 2.constituents or metabolites of technical chlordane

2 8 0034

DATA QUALIFIER REPORT

Project No.: 97-0146

Site Name: Terry Creek Dredge

| <u>Affected Samples</u> | <u>Analyte</u> | <u>Flag Used</u> | <u>Reason</u> |
|-------------------------|-----------------|------------------|--|
| All | total congeners | J | Assumed Resp. Factors/ Cal. Stds not available for all congeners |
| 005 | 1234678 HpCDD | J | 1 |

TEQ's : The Toxic Equivalent (TEQ) represents a summation of values from the individual equivalents that are calculated for each of the 2,3,7,8 containing isomers. If 10% or greater of the TEQ value was from data considered to be estimated, then the TEQ is reported as estimated (J flag).

Abbreviation Key:

| | | | |
|-------|----------------------------|-------|---------------------------|
| TCDD | = Tetrachlorodibenzodioxin | TCDF | = Tetrachlorodibenzofuran |
| PeCDD | = Pentachlorodibenzodioxin | PeCDF | = Pentachlorodibenzofuran |
| HxCDD | = Hexachlorodibenzodioxin | HxCDF | = Hexachlorodibenzofuran |
| HpCDD | = Heptachlorodibenzodioxin | HpCDF | = Heptachlorodibenzofuran |
| OCDD | = Octachlorodibenzodioxin | OCDF | = Octachlorodibenzofuran |
| IS | = Internal Standard | | |

Reason Codes

1. Results lower than the minimum quantitation limit
2. Results higher than the maximum calibration limit

C-1. Extractable Organic Compounds in Blue Crab Tissue.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | |
|-------------------------------------|-------|---------|-------|-------|-------|-------|
| | | 001 | 002 | 003 | 004 | 005 |
| BIS(2-CHLOROETHYL) ETHER | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| HEXACHLOROETHANE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BIS(2-CHLOROISOPROPYL) ETHER | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| N-NITROSODI-N-PROPYLAMINE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| NITROBENZENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| HEXACHLOROBUTADIENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2-METHYLNAPHTHALENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 1,2,4-TRICHLOROBENZENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| NAPHTHALENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 4-CHLOROANILINE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BIS(2-CHLOROETHOXY)METHANE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| ISOPHORONE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| HEXACHLOROCYCLOPENTADIENE (HCCP) | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2-CHLORONAPHTHALENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2-NITROANILINE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| ACENAPHTHYLENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| ACENAPHTHENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| DIMETHYL PHTHALATE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| DIBENZOFURAN | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,4-DINITROTOLUENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,6-DINITROTOLUENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 3-NITROANILINE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 4-CHLOROPHENYL PHENYL ETHER | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 4-NITROANILINE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| FLUORENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| DIETHYL PHTHALATE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| N-NITROSODIPHENYLAMINE/DIPHENYLAMIN | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| HEXACHLOROBENZENE (HCB) | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 4-BROMOPHENYL PHENYL ETHER | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| PHENANTHRENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| ANTHRACENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| DI-N-BUTYLPHthalate | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| FLUORANTHENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| PYRENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BENZYL BUTYL PHTHALATE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BENZO(A)ANTHRACENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| CHRYSENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 3,3'-DICHLOROBENZIDINE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| DI-N-OCTYLPHthalate | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BENZO(B AND/OR K)FLUORANTHENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BENZO-A-PYRENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| INDENO (1,2,3-CD) PYRENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| DIBENZO(A,H)ANTHRACENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| BENZO(GHI)PERYLENE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2-C ₁ -DROPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2-M ₁ -HYLPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| (3-AND/OR 4-)METHYLPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2-NITROPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |

C-1 (cont). Extractable Organic Compounds in Blue Crab Tissue.
 Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | |
|----------------------------|-------|---------|-------|-------|-------|-------|
| | | 001 | 002 | 003 | 004 | 005 |
| PHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,4-DIMETHYLPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,4-DICHLOROPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,4,6-TRICHLOROPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,4,5-TRICHLOROPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 4-CHLORO-3-METHYLPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| 2,4-DINITROPHENOL | MG/KG | 3.7 U | 3.2 U | 3.2 U | 3.3 U | 2.6 U |
| 2-METHYL-4,6-DINITROPHENOL | MG/KG | 3.7 U | 3.2 U | 3.2 U | 3.3 U | 2.6 U |
| PENTACHLOROPHENOL | MG/KG | 3.7 U | 3.2 U | 3.2 U | 3.3 U | 2.6 U |
| 4-NITROPHENOL | MG/KG | 3.7 U | 3.2 U | 3.2 U | 1.7 U | 1.3 U |
| 2,3,4,6-TETRACHLOROPHENOL | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |
| CARBAZOLE | MG/KG | 1.9 U | 1.6 U | 1.6 U | 1.7 U | 1.3 U |

Miscellaneous Extractable Organic Compounds in Blue Crab Tissue.

| Analyte | Units | Station | | | | |
|--------------------------|-------|---------|-------|-------|-------|-------|
| | | 001 | 002 | 003 | 004 | 005 |
| 1 UNIDENTIFIED COMPOUND | | | | 10 J | 10 J | |
| 2 UNIDENTIFIED COMPOUNDS | | | 10 J | | | |
| HEXADECANOIC ACID | | | 20 JN | 20 JN | 20 JN | 30 JN |
| HEXADECENOIC ACID | | | 7 JN | 10 JN | 10 JN | 10 JN |
| METHYLEICOSAPENTAENOATE | | | | | | 40 JN |
| NIACINAMIDE | | | | | | |
| OCTADECANOIC ACID | | | 3 JN | 30 JN | 8 JN | 10 JN |
| OLEIC ACID | | | 20 JN | 10 JN | 30 JN | 40 JN |
| TETRADECANOIC ACID | | | 2 JN | 3 JN | | 3 JN |
| TETRADECANOOIC ACID | | | | | 2 JN | |
| VITAMIN E | | | 8 JN | 9 JN | 10 JN | 10 JN |

C-2. Pesticides / PCB's in Blue Crab Tissue.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | |
|------------------------------|-------|----------|---------|---------|---------|---------|
| | | 001 | 002 | 003 | 004 | 005 |
| ALDRIN | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| HEPTACHLOR | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| HEPTACHLOR EPOXIDE | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| ALPHA-BHC | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| BETA-BHC | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| GAMMA-BHC (LINDANE) | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| DELTA-BHC | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| ENDOSULFAN I (ALPHA) | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| DIELDRIN | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| 4,4'-DDT (P,P'-DDT) | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| 4,4'-DDE (P,P'-DDE) | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| 4,4'-DDD (P,P'-DDD) | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| ENDRIN | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| ENDOSULFAN II (BETA) | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| ENDOSULFAN SULFATE | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |
| CHLORDANE (TECH. MIXTURE) /1 | MG/KG | 0.024 UJ | 0.019 U | 0.02 U | 0.021 U | 0.016 U |
| PCB-1242 (AROCLOR 1242) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1254 (AROCLOR 1254) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1221 (AROCLOR 1221) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1232 (AROCLOR 1232) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1248 (AROCLOR 1248) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1260 (AROCLOR 1260) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1016 (AROCLOR 1016) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| PCB-1268 (AROCLOR 1268) | MG/KG | 0.048 UJ | 0.039 U | 0.04 U | 0.041 U | 0.032 U |
| TOXAPHENE | MG/KG | 0.39 UJ | 0.31 U | 0.32 U | 0.33 U | 0.26 U |
| METHOXYCHLOR | MG/KG | 0.019 UJ | 0.016 U | 0.016 U | 0.017 U | 0.013 U |
| ENDRIN KETONE | MG/KG | 0.01 UJ | 0.008 U | 0.008 U | 0.008 U | 0.006 U |

2 8 0039

**C-3. Metals in Blue Crab Tissue.
Terry Creek, Brunswick, Georgia. 1997.**

| Analyte | Units | Station | | | | |
|---------------|-------|---------|--------|--------|--------|--------|
| | | 001 | 002 | 003 | 004 | 005 |
| SILVER | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| ARSENIC | MG/KG | 2.9 | 3.6 | 3.1 | 2 | 0.95 |
| BARIUM | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| BERYLLOIUM | MG/KG | 0.09 U | 0.09 U | 0.1 U | 0.09 U | 0.1 U |
| CADMIUM | MG/KG | 0.09 U | 0.09 U | 0.1 U | 0.09 U | 0.1 U |
| COBALT | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| CHROMIUM | MG/KG | 0.18 U | 0.19 U | 0.21 | 0.24 | 0.19 U |
| COPPER | MG/KG | 11 | 9.7 | 12 | 6.5 | 9 |
| MOLYBDENUM | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| NICKEL | MG/KG | 0.35 U | 0.37 U | 0.39 U | 0.38 U | 0.38 U |
| LEAD | MG/KG | 0.7 U | 0.75 U | 0.78 U | 0.75 U | 0.76 U |
| ANTIMONY | MG/KG | 0.53 U | 0.56 U | 0.59 U | 0.56 U | 0.57 U |
| SELENIUM | MG/KG | 0.09 U | 0.09 U | 0.1 U | 0.09 U | 0.1 U |
| TIN | MG/KG | 0.62 U | 0.66 U | 0.68 U | 0.66 U | 0.67 U |
| STRONTIUM | MG/KG | 7.1 | 7 | 7.6 | 11 | 9.1 |
| TELLURIUM | MG/KG | 0.88 U | 0.94 U | 0.98 U | 0.94 U | 0.96 U |
| TITANIUM | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| THALLIUM | MG/KG | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U |
| VANADIUM | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| YTTRIUM | MG/KG | 0.18 U | 0.19 U | 0.2 U | 0.19 U | 0.19 U |
| ZINC | MG/KG | 34 | 29 | 36 | 41 | 32 |
| TOTAL MERCURY | MG/KG | 0.18 | 0.27 | 0.16 | 0.17 | 0.09 |
| ALUMINUM | MG/KG | 3.5 | 3.9 | 4.8 | 4.2 | 2.9 |
| MANGANESE | MG/KG | 1.2 | 2.3 | 0.82 | 1.5 | 1.5 |
| CALCIUM | MG/KG | 600 | 570 | 600 | 930 | 750 |
| MAGNESIUM | MG/KG | 290 | 280 | 300 | 340 | 320 |
| IRON | MG/KG | 4.4 | 6 | 6.3 | 6.4 | 4.9 |
| SODIUM | MG/KG | 1800 | 1800 | 2300 | 2500 | 2300 |
| POTASSIUM | MG/KG | 3000 | 3400 | 3400 | 3300 | 3300 |

D-1. Extractable Organic Compounds in Forage Fish Tissue.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | |
|---------------------------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 2 03/07/97 | 3 03/06/97 | 3 03/06/97 | 4 03/05/97 | 4 03/07/97 | 5 03/05/97 | 5 03/05/97 | 5 03/07/97 | 9 03/07/97 |
| BIS(2-CHLOROETHYL) ETHER | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| HEXACHLOROETHANE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| BIS(2-CHLOROISOPROPYL) ETHER | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| N-NITROSODI-N-PROPYLAMINE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| NITROBENZENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| HEXACHLOROBUTADIENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 2-METHYLNAPHTHALENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 1,2,4-TRICHLOROBENZENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| NAPHTHALENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 4-CHLOROANILINE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| BIS(2-CHLOROETHOXY)METHANE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| ISOPHORONE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| HEXACHLOROCYCLOPENTADIENE (HC) | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 2-CHLORONAPHTHALENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 2-NITROANILINE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| ACENAPHTHYLENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| ACENAPHTHENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| DIMETHYL PHTHALATE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| DIBENZOFURAN | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 2,4-DINITROTOLUENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 2,6-DINITROTOLUENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 3-NITROANILINE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 4-CHLOROPHENYL PHENYL ETHER | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 4-NITROANILINE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| FLUORENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| DIETHYL PHTHALATE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| N-NITROSODIPHENYLAMINE/DIPHENYL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| HEXACHLOROBENZENE (HCB) | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| 4-BROMOPHENYL PHENYL ETHER | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| PHENANTHRENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| ANTHRACENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| DI-N-BUTYLPHthalate | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |
| FLUORANTHENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U |

D-1 (cont). Extractable Organic Compounds in Forage Fish Tissue.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | | | |
|-------------------------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 2 03/07/97 | 3 03/06/97 | 3 03/06/97 | 4 03/05/97 | 4 03/07/97 | 5 03/05/97 | 5 03/05/97 | 5 03/07/97 | 5 03/07/97 | 9 03/07/97 |
| PYRENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| BENZYL BUTYL PHTHALATE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| BIS(2-ETHYLHEXYL) PHTHALATE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| BENZO(A)ANTHRACENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| CHRYSENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 3,3'-DICHLOROBENZIDINE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| DI-N-OCTYLPHthalate | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| BENZO(B AND/OR K)FLUORANTHENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| BENZO-A-PYRENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| INDENO (1,2,3-CD) PYRENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| DIBENZO(A,H)ANTHRACENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| BENZO(GHI)PERYLENE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2-CHLOROPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2-METHYLPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| (3-AND/OR 4-)METHYLPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2-NITROPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| PHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 1.7 J | 7 U | |
| 2,4-DIMETHYLPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2,4-DICHLOROPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2,4,6-TRICHLOROPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2,4,5-TRICHLOROPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 4-CHLORO-3-METHYLPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| 2,4-DINITROPHENOL | MG/KG | 14 U | 29 U | 15 U | 28 U | 16 U | 26 U | 27 U | 16 U | 14 U | |
| 2-METHYL-4,6-DINITROPHENOL | MG/KG | 14 U | 29 U | 15 U | 28 U | 16 U | 26 U | 27 U | 16 U | 14 U | |
| PENTACHLOROPHENOL | MG/KG | 14 U | 29 U | 15 U | 28 U | 16 U | 26 U | 27 U | 16 U | 14 U | |
| 4-NITROPHENOL | MG/KG | 14 U | 29 U | 15 U | 28 U | 16 U | 26 U | 27 U | 16 U | 14 U | |
| 2,3,4,6-TETRACHLOROPHENOL | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |
| CARBAZOLE | MG/KG | 6.8 U | 14 U | 7.4 U | 14 U | 8 U | 13 U | 13 U | 8.2 U | 7 U | |

D-2. Pesticides / PCB's Forage Fish Tissue.

Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | |
|-----------------------------|-------|---------------|---------------|---------------|---------------|
| | | 3 03/05/97 | 4 03/05/97 | 5 03/05/97 | 5 03/05/97 |
| ALDRIN | MG/KG | 0.02 U | 0.025 U | 0.028 U | 0.018 U |
| HEPTACHLOR | MG/KG | 0.011 U | 0.025 U | 0.028 U | 0.018 U |
| HEPTACHLOR EPOXIDE | MG/KG | 0.029 U | 0.032 U | 0.028 U | 0.018 U |
| ALPHA-BHC | MG/KG | 0.01 U | 0.025 U | 0.028 U | 0.018 U |
| BETA-BHC | MG/KG | 0.019 U | 0.025 U | 0.028 U | 0.018 U |
| GAMMA-BHC (LINDANE) | MG/KG | 0.012 U | 0.025 U | 0.028 U | 0.018 U |
| DELTA-BHC | MG/KG | 0.024 U | 0.025 U | 0.028 U | 0.018 U |
| ENDOSULFAN I (ALPHA) | MG/KG | 0.028 U | 0.065 U | 0.028 U | 0.018 U |
| DIELDRIN | MG/KG | 0.18 U | 0.23 U | 0.13 U | 0.059 U |
| 4,4'-DDT (P,P'-DDT) | MG/KG | 0.037 U | 0.05 U | 0.045 U | 0.034 U |
| 4,4'-DDE (P,P'-DDE) | MG/KG | 0.042 U | 0.05 U | 0.045 U | 0.034 U |
| 4,4'-DDD (P,P'-DDD) | MG/KG | 0.038 U | 0.05 U | 0.045 U | 0.034 U |
| ENDRIN | MG/KG | 0.036 U | 0.1 U | 0.045 U | 0.034 U |
| ENDOSULFAN II (BETA) | MG/KG | 0.037 U | 0.05 U | 0.045 U | 0.034 U |
| ENDOSULFAN SULFATE | MG/KG | 0.037 U | 0.05 U | 0.045 U | 0.034 U |
| CHLORDANE (TECH. MIXTURE) / | MG/KG | 0.18 U | 0.12 U | 0.094 U | 0.091 U |
| PCB-1242 (AROCLOR 1242) | MG/KG | 0.22 U | 0.18 U | 0.21 U | 0.2 U |
| PCB-1254 (AROCLOR 1254) | MG/KG | 0.22 U | 0.32 U | 0.21 U | 0.2 U |
| PCB-1221 (AROCLOR 1221) | MG/KG | 0.22 U | 0.18 U | 0.21 U | 0.2 U |
| PCB-1232 (AROCLOR 1232) | MG/KG | 0.22 U | 0.18 U | 0.21 U | 0.2 U |
| PCB-1248 (AROCLOR 1248) | MG/KG | 0.22 U | 0.18 U | 0.21 U | 0.2 U |
| PCB-1260 (AROCLOR 1260) | MG/KG | 0.22 U | 0.32 U | 0.21 U | 0.2 U |
| PCB-1016 (AROCLOR 1016) | MG/KG | 0.22 U | 0.18 U | 0.21 U | 0.2 U |
| PCB-1268 (AROCLOR 1268) | MG/KG | 0.18 U | 0.18 U | 0.16 U | 0.17 U |
| TOXAPHENE | MG/KG | 6.6 JN | 14 JN | 5.3 JN | 2.3 JN |
| METHOXYCHLOR | MG/KG | 0.072 U | 0.07 U | 0.065 U | 0.066 U |
| ENDRIN KETONE | MG/KG | 0.04 U | 0.048 U | 0.045 U | 0.039 U |

D-2 (cont). Forage Fish Tissue Analyzed for Toxaphene and PCB-1268 Only.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | |
|-------------------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 2 03/07/97 | 3 03/06/97 | 4 03/07/97 | 5 03/07/97 | 7 03/07/97 | 8 03/07/97 | 9 03/07/97 |
| PCB-1268 (AROCLOR 1268) | MG/KG | 0.22 U | 0.39 U | 0.41 U | 0.2 U | 0.32 U | 0.18 U | 0.18 U |
| TOXAPHENE | MG/KG | 4.8 JN | 5.1 JN | 27 JN | 5.6 JN | 1.9 JN | 2.7 JN | 2.3 JN |

D-3. Metals in ~~Fo~~ Fish Tissue.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | | | | | |
|---------------|-------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | 2 03/07/97 | 3 03/05/97 | 3 03/06/97 | 4 03/05/97 | 4 03/07/97 | 5 03/05/97 | 5 03/05/97 | 9 03/07/97 |
| SILVER | MG/KG | 0.19 U | 0.8 U | 0.2 U | 0.8 U | 0.2 U | 0.8 U | 1 U | 0.19 U |
| ARSENIC | MG/KG | 0.95 U | 0.5 U | 0.48 | 0.5 U | 0.28 | 0.5 U | 0.5 U | 0.52 |
| BARIUM | MG/KG | 1.2 | 0.97 | 1.1 | 1.5 | 1.5 | 0.8 U | 0.98 | 0.94 |
| BERYLLIUM | MG/KG | 0.095 U | 0.4 U | 0.098 U | 0.4 U | 0.1 U | 0.4 U | 0.5 U | 0.095 U |
| CADMIUM | MG/KG | 0.095 U | 0.4 U | 0.098 U | 0.4 U | 0.1 U | 0.4 U | 0.5 U | 0.095 U |
| COBALT | MG/KG | 0.19 U | 0.8 U | 0.2 U | 0.8 U | 0.2 U | 0.8 U | 1 U | 0.19 U |
| CHROMIUM | MG/KG | 0.6 | 0.8 U | 0.35 | 0.8 U | 0.31 | 0.8 U | 3 U | 0.36 |
| COPPER | MG/KG | 2.5 | 1.4 | 1.6 | 1.2 | 1.3 | 15 | 2 | 2.7 |
| MOLYBDENUM | MG/KG | 0.19 U | 0.8 U | 0.2 U | 0.8 U | 0.2 U | 0.8 U | 1 U | 0.19 U |
| NICKEL | MG/KG | 0.38 U | 1.6 U | 0.39 U | 1.6 U | 0.4 U | 2.7 | 2.5 U | 0.38 U |
| LEAD | MG/KG | 0.76 U | 0.1 U | 0.78 U | 0.1 U | 0.8 U | 0.42 U | 0.1 U | 0.76 U |
| ANTIMONY | MG/KG | 0.57 U | 0.1 U | 0.59 U | 0.1 U | 0.6 U | 0.1 U | 0.1 U | 0.57 U |
| SELENIUM | MG/KG | 0.95 UJ | 0.14 | 0.52 J | 0.14 | 0.58 J | 0.1 | 0.1 | 0.48 J |
| TIN | MG/KG | 0.65 U | 2 U | 0.75 U | 2 U | 0.7 U | 2 U | 2.5 U | 0.65 U |
| STRONTIUM | MG/KG | 63 | 56 | 67 | 46 | 44 | 63 | 72 | 71 |
| TELLURIUM | MG/KG | 0.95 U | 4 U | 0.98 U | 4 U | 1 U | 4 U | 5 U | 0.95 U |
| TITANIUM | MG/KG | 3 | 0.95 U | 1 U | 0.8 U | 1 U | 0.8 U | 1 U | 0.95 U |
| THALLIUM | MG/KG | 0.05 U | 0.04 U | 0.05 U | 0.04 U | 0.05 U | 0.04 U | 0.04 U | 0.05 U |
| VANADIUM | MG/KG | 0.79 | 0.8 U | 0.82 | 0.8 U | 0.31 | 0.8 U | 1 U | 0.38 |
| YTTRIUM | MG/KG | 0.19 U | 0.8 U | 0.2 U | 0.8 U | 0.2 U | 0.8 U | 1 U | 0.19 U |
| ZINC | MG/KG | 37 | 32 | 32 | 31 | 32 | 42 | 32 | 30 |
| TOTAL MERCURY | MG/KG | | 0.02 U | | 0.02 U | | 0.022 | 0.02 U | |
| ALUMINUM | MG/KG | 260 | 90 | 84 | 15 | 15 | 31 | 82 | 24 |
| MANGANESE | MG/KG | 7.4 | 10 | 10 | 4.9 | 3.8 | 8.4 | 29 | 8.8 |
| CALCIUM | MG/KG | 12000 | 11000 | 11000 | 12000 | 12000 | 12000 | 14000 | 12000 |
| MAGNESIUM | MG/KG | 480 | 470 | 480 | 460 | 460 | 470 | 460 | 480 |
| IRON | MG/KG | 160 | 63 | 54 | 17 | 18 | 26 | 81 | 24 |
| SODIUM | MG/KG | 1400 | 1500 | 1600 | 1500 | 1600 | 1400 | 1400 | 1400 |
| POTASSIUM | MG/KG | 3000 | 2900 | 3100 | 2700 | 2900 | 3200 | 2900 | 3000 |

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E-1. Extractable Organic Compounds in Consumer Fish.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | |
|-------------------------------------|-------|---------|--------|--------|--------|
| | | ZONE A | ZONE B | ZONE C | ZONE D |
| BIS(2-CHLOROETHYL) ETHER | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| HEXACHLOROETHANE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BIS(2-CHLOROISOPROPYL) ETHER | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| N-NITROSODI-N-PROPYLAMINE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| NITROBENZENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| HEXACHLOROBUTADIENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2-METHYLNAPHTHALENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 1,2,4-TRICHLOROBENZENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| NAPHTHALENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 4-CHLOROANILINE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BIS(2-CHLOROETHOXY)METHANE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| ISOPHORONE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| HEXACHLOROCYCLOPENTADIENE (HCCP) | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2-CHLORONAPHTHALENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2-NITROANILINE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| ACENAPHTHYLENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| ACENAPHTHENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| DIMETHYL PHTHALATE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| DIBENZOFURAN | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,4-DINITROTOLUENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,6-DINITROTOLUENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 3-NITROANILINE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 4-CHLOROPHENYL PHENYL ETHER | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 4-NITROANILINE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| FLUORENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| DIETHYL PHTHALATE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| N-NITROSODIPHENYLAMINE/DIPHENYLAMIN | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| HEXACHLOROBENZENE (HCB) | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 4-BROMOPHENYL PHENYL ETHER | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| PHENANTHRENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| ANTHRACENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| DI-N-BUTYLPHthalate | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| FLUORANTHENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |

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E-1 (cont). Extractable Organic Compounds in Consumer Fish.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | |
|-------------------------------|-------|---------|--------|--------|--------|
| | | ZONE A | ZONE B | ZONE C | ZONE D |
| PYRENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BENZYL BUTYL PHTHALATE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BIS(2-ETHYLHEXYL) PHTHALATE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BENZO(A)ANTHRACENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| CHRYSENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 3,3'-DICHLOROBENZIDINE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| DI-N-OCTYLPHthalate | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BENZO(B AND/OR K)FLUORANTHENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BENZO-A-PYRENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| INDENO (1,2,3-CD) PYRENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| DIBENZO(A,H)ANTHRACENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| BENZO(GHI)PERYLENE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2-CHLOROPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2-METHYLPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| (3-AND/OR 4-)METHYLPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2-NITROPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| PHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,4-DIMETHYLPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,4-DICHLOROPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,4,6-TRICHLOROPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,4,5-TRICHLOROPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 4-CHLORO-3-METHYLPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| 2,4-DINITROPHENOL | MG/KG | 13 U | 12 U | 14 U | 13 U |
| 2-METHYL-4,6-DINITROPHENOL | MG/KG | 13 U | 12 U | 14 U | 13 U |
| PENTACHLOROPHENOL | MG/KG | 13 U | 12 U | 14 U | 13 U |
| 4-NITROPHENOL | MG/KG | 13 U | 12 U | 14 U | 13 U |
| 2,3,4,6-TETRACHLOROPHENOL | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |
| CARBAZOLE | MG/KG | 6.4 U | 6.2 U | 6.8 U | 6.4 U |

E-1 (cont). Miscellaneous Extractable Organic Compounds in Consumer Fish.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | |
|----------------------------------|-------|---------|--------|--------|--------|
| | | ZONE A | ZONE B | ZONE C | ZONE D |
| 1 UNIDENTIFIED COMPOUND | MG/KG | | 20 J | | 30 J |
| 2 UNIDENTIFIED COMPOUNDS | MG/KG | 40 J | | 60 J | |
| 3 UNIDENTIFIED COMPOUNDS | MG/KG | | | | |
| 4 UNIDENTIFIED COMPOUNDS | MG/KG | | | | |
| 5 UNIDENTIFIED COMPOUNDS | MG/KG | | | | |
| HEPTADECANOIC ACID | MG/KG | | | | |
| HEXADECANOIC ACID | MG/KG | 100 JN | 60 JN | 100 JN | 90 JN |
| HEXADECANOIC ACID, METHYL ESTER- | MG/KG | | | | |
| HEXADECANOIC ACID, METHYL ESTER- | MG/KG | | | | |
| HEXADECENOIC ACID | MG/KG | 80 JN | 40 JN | 100 JN | 70 JN |
| HEXADECENOIC ACID, METHYL ESTER- | MG/KG | | | | |
| NIACINAMIDE | MG/KG | | 7 JN | | |
| OCTADECANOIC ACID | MG/KG | 20 JN | | 20 JN | 9 JN |
| OLEIC ACID | MG/KG | 100 JN | 20 JN | 60 JN | 50 JN |
| PENTADECANOIC ACID | MG/KG | | | | |
| TETRADECANOIC ACID | MG/KG | | | | |

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E-2. Pesticides / PCB's in Consumer Fish. Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | |
|-------------------------|-------|---------|--------|--------|--------|
| | | ZONE A | ZONE B | ZONE C | ZONE D |
| PCB-1268 (AROCLOL 1268) | MG/KG | 0.18 U | 0.18 U | 0.2 U | 0.35 U |
| TOXAPHENE | MG/KG | 1.6 JN | 1.7 JN | 2.6 JN | 3.9 JN |

E-3. Metals in Consumer Fish.
Terry Creek, Brunswick, Georgia. 1997.

| Analyte | Units | Station | | | |
|------------|-------|---------|--------|--------|---------|
| | | ZONE A | ZONE B | ZONE C | ZONE D |
| SILVER | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| ARSENIC | MG/KG | 0.33 | 0.34 | 0.57 | 0.29 |
| BARIUM | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| BERYLLIUM | MG/KG | 0.1 U | 0.1 U | 0.1 U | 0.099 U |
| CADMIUM | MG/KG | 0.1 U | 0.1 U | 0.1 U | 0.099 U |
| COBALT | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| CHROMIUM | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| COPPER | MG/KG | 0.26 | 0.21 | 0.22 | 0.22 |
| MOLYBDENUM | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| NICKEL | MG/KG | 0.4 U | 0.4 U | 0.4 U | 0.4 U |
| LEAD | MG/KG | 0.8 U | 0.8 U | 0.8 U | 0.8 U |
| ANTIMONY | MG/KG | 0.6 U | 0.6 U | 0.6 U | 0.6 U |
| SELENIUM | MG/KG | 0.41 J | 0.38 J | 0.47 J | 0.47 J |
| TIN | MG/KG | 0.65 U | 0.7 U | 0.65 U | 0.75 U |
| STRONTIUM | MG/KG | 0.46 | 0.75 | 0.5 | 0.8 |
| TELLURIUM | MG/KG | 1 U | 1 U | 1 U | 0.99 U |
| TITANIUM | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| THALLIUM | MG/KG | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| VANADIUM | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| YTTRIUM | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| ZINC | MG/KG | 6.5 | 7.3 | 6.7 | 7.2 |
| ALUMINUM | MG/KG | 2 U | 2 U | 2 U | 2 U |
| MANGANESE | MG/KG | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| CALCIUM | MG/KG | 150 | 220 | 160 | 250 |
| MAGNESIUM | MG/KG | 290 | 300 | 290 | 300 |
| IRON | MG/KG | 2.8 | 3.4 | 2 | 2.7 |
| SODIUM | MG/KG | 430 | 400 | 370 | 410 |
| POTASSIUM | MG/KG | 4300 | 4500 | 4300 | 4300 |

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